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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/541,462	03/31/2000	Yue Xiong	5470-255	3846

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EXAMINER

RAMIREZ, DELIA M

ART UNIT	PAPER NUMBER
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1652

DATE MAILED: 08/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/541,462	XIONG ET AL.	
	Examiner	Art Unit	
	Delia M. Ramirez	1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-7,13-16 and 49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,13-16 and 49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____  | 6) <input checked="" type="checkbox"/> Other: <u>alignments</u> .           |

*RP*

## DETAILED ACTION

### *Status of the Application*

Claims 1, 3-7, 13-16 and 49 are pending.

Applicant's amendment of claims 1, 15-16, cancellation of claims 8-12, 17-48, and addition of claim 49 in an After Final communication filed on 1/15/2004 is acknowledged. The amendment has been entered.

A reference relevant to the examination of the instant application has become available. The finality of the previous Office Action Paper No. 22, mailed on 10/17/2003 is hereby withdrawn in view of new ground(s) of rejection not previously introduced. *Ex-parte* prosecution is now reopened. An action on the merits follows.

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

### *Specification*

1. The use of trademarks has been noted throughout the application. See, for example, "Invitrogen" (page 32), "Promega" (pages 32 and 53), "Immunex" (page 32), etc. They should be capitalized wherever it appears and be accompanied by the generic terminology. Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks. Applicant's cooperation is requested in reviewing the specification for other trademarks that may be present in the specification which the Examiner may have inadvertently overlooked and making the appropriate corrections.
2. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. See, for example, page 21, line 16. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

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3. The specification is objected to because of the following informalities: the address for the American Type Culture Collection (ATCC) listed at page 29, lines 30-31 is incorrect and should be replaced with "10801 University Boulevard, Manassas, VA 20110-2209".

***Oath/Declaration***

4. As indicated in the Non Final action mailed on 5/6/2003 and the Final Action mailed on 10/17/2003, the oath or declaration is defective because while the first paragraph of the specification claims priority to provisional application No. 60/166127, filed 11/22/1999, the declaration claims priority to unrelated provisional application No. 60/133927. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

***Priority***

5. Acknowledgment is made of a claim for domestic priority under 35 U.S.C. 120 or 121 to US application No. 60/127261 filed on 3/31/1999. SEQ ID NO:1 and 2 have been disclosed in this provisional application.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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7. Claims 1, 3-7, 13-16, and 49 are rejected under 35 U.S.C. 102(e) as being anticipated by Edwards et al. (U.S. Patent No. 6783961, published 8/31/2004).

Claims 1 and 3 are directed in part to a polynucleotide encoding the polypeptide of SEQ ID NO:

2. Edwards et al. teach a polynucleotide (SEQ ID NO: 3894; 482 nucleotides long) which encodes a polypeptide of 108 amino acids (SEQ ID NO: 7971; column 16, lines 56-61) which is 100% sequence identical to the polypeptide of SEQ ID NO: 2 (also 108 amino acids long). The polynucleotide of Edwards et al. comprises all of SEQ ID NO: 1 (327 nucleotides long). See attached alignments.

Therefore, the polynucleotide of Edwards et al. anticipate claims 1 and 3 as written.

Claims 5-7 are directed to expression vectors and host cells comprising the expression vectors, wherein the expression vectors comprise a polynucleotide encoding the polypeptide of SEQ ID NO: 2. Claims 16 and 49 are directed to a method to recombinantly produce the polypeptide of SEQ ID NO: 2 or a fragment thereof. Edwards et al. also teach expression vectors (column 10, lines 13-20; column 15, lines 20-22), host cells comprising the expression vectors and capable of expressing the protein or fragments thereof (column 13, lines 28-39; column 15, lines 23-24), and a method to recombinantly produce the polypeptide, or fragments thereof, by culturing the transformed host cell (column 13, lines 28-39). Therefore, the host cells, vectors and methods of Edwards et al. anticipate the instant claims as written.

Claims 13-14 are directed in part to DNA antisense oligonucleotides 12 to 50 nucleotides in length completely complementary to a polynucleotide encoding the polypeptide of SEQ ID NO: 2. Claim 15 is directed to an expression vector capable of transcribing the antisense oligonucleotide of claim 13. Edwards et al. teach DNA oligonucleotides comprising at least 12 consecutive nucleotides which are fragments of the complementary (antisense) polynucleotide (column 7, lines 50-62; column 5, lines 50-56), and an expression vector capable of transcribing the antisense oligonucleotides (Example 16; column

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27, lines 20-27). Therefore, the oligonucleotides and expression vector of Edwards et al. anticipate claims 13-15 as written.

Claim 4 is directed to a polynucleotide consisting of SEQ ID NO: 1. While the polynucleotide of Edwards et al. does not consist of SEQ ID NO: 1 (comprises additional nucleotides in addition to SEQ ID NO: 1), Edwards et al. teach that the polynucleotide of SEQ ID NO: 3894 encodes a polypeptide having the same length and sequence as that of the polypeptide of SEQ ID NO: 2 of the instant application, and it also teach fragments of the polynucleotide of SEQ ID NO: 3894 wherein said fragments encode the full-length protein (column 9, lines 40-48). Thus, Edwards et al. teach the cDNA corresponding to the polynucleotide of SEQ ID NO: 3894. SEQ ID NO: 1 of the instant application corresponds to the coding region of the polynucleotide of Edwards et al. Therefore, the teachings of Edwards et al. would anticipate the instant claim as written.

8. It is noted that U.S. Patent No. 6783961, which issued from U.S. Application No. 09/513999 filed on 2/24/2000, claims benefit to U.S. provisional application No. 60/122487, filed on 2/26/1999. It has been determined that SEQ ID NO: 3894 and SEQ ID NO: 7971 have been disclosed in U.S. provisional application No. 60/122487 with the same sequence identifiers. Therefore, the 102(e) date for prior art purposes is 2/26/1999.

#### *Art of Interest*

9. Conaway et al. (U.S. Patent No. 6858709) discloses the polypeptide of SEQ ID NO: 2 of the instant application and the corresponding polynucleotide. U.S. Patent No. 6858709 issued from U.S. Application No. 09/914324, which is the national stage of PCT/US00/04838, filed on 02/25/2000, which claims benefit of 60/121,787, filed on 02/26/1999. In view of the fact that the filing date of the PCT application is earlier than November 29, 2000, U.S. Patent No. 6858709 is not available as 102(e) prior art. It has been determined that while U.S. provisional application No. 60/121,787 does not disclose the

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sequence of the encoding polynucleotide as set forth in U.S. Application No. 09/914324, it discloses the isolation of the polynucleotide. Also, at this time, the claims in divisional application 10/913,937 (U.S. Publication 20050019813; Conaway et al.) are not directed to the encoding polynucleotide.

### *Conclusion*

10. No claim is in condition for allowance.
11. The cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the Office of Public Records and from commercial sources.
12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PMR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delia M. Ramirez whose telephone number is (571) 272-0938. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.  
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Ponnathapura Achutamurthy can be reached on (571) 272-0928. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

Delia M. Ramirez, Ph.D.  
Patent Examiner  
Art Unit 1652

DR  
July 13, 2005

  
REBECCA E. PROUTY  
PRIMARY EXAMINER  
GROUP 1800-  
1600